

NASA/MSFC PREDICTION TECHNIQUES

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The NASA/MSFC method of forecasting is more formal than NOAA's. The data is smoothed by the Lagrangian method and linear regression prediction techniques are used. The solar activity period is fixed at 11 years--the mean period of all previous cycles. Interestingly, our present prediction for the time of the next solar minimum is February or March of 1987, which, within the uncertainties of two methods, can be taken to be the same as the NOAA result.

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MSFC SOLAR ACTIVITY PREDICTION TECHNIQUE

DATABASE

SOLAR CYCLES 1-21

DATA SMOOTHED BY LAGRANGIAN METHOD

132 EQUALLY SPACED DATA POINTS IN EACH CYCLE

2 SEPARATE BASES

MAX TO MAX

MIN TO MIN

PREDICTION TECHNIQUE

LINCOLN-McNISH LINEAR REGRESSION TECHNIQUE USING ONE DATA POINT

RANK DATA IN 40 CLASS INTERVALS AT EACH TIME INCREMENT

FIRST CLASS INTERVAL THAT CONTAINS DATA IS THE 2.5 PERCENTILE

LAST CLASS INTERVAL THAT CONTAINS DATA IS THE 97.5 PERCENTILE

PERIOD IS FIXED AT 11 YEARS (132 DATA POINTS)

MAX TO MAX AND MIN TO MIN PREDICTIONS

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